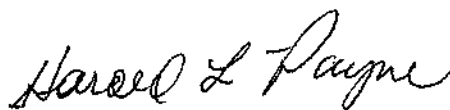


DECLARATION OF HAROLD L. PAYNE

I, HAROLD L. PAYNE, declare and state as follows:

1. I am a consultant in the field of agricultural management with nearly 30 years experience in irrigation management, on-farm water conservation, crop management, soil management, and water rights issues. A current curriculum vitae detailing my qualifications and experience is attached to this declaration.
2. I have been retained by the Metropolitan Water District of Southern California (Metropolitan) to assist it in evaluating the amount of Colorado River water needed to satisfy reasonable and beneficial uses within the Imperial Irrigation District (IID).
3. My opinions, findings and conclusions concerning this matter are discussed in detail in the attached May 27, 2003 memorandum to Principal Engineer Kirk Dimmitt, Subject: On-Farm Water Conservation Opportunities, which I prepared jointly with Mr. F. Bruce Brown.
4. As to me, the opinions, findings and conclusions detailed in the attached memorandum are based upon my own personal and professional knowledge of and expertise in the matters that are addressed and, if called as a witness, I could and would testify competently thereto.

I declare that the foregoing is true and correct and that this declaration was executed in El Centro, California on May 28, 2003.



HAROLD L. PAYNE

Consultant to Metropolitan in the field of
agricultural irrigation management

HAROLD PAYNE C.P. Ag./SS
Certified Professional Agronomist
Certified Professional Soil Scientist

EDUCATION: B.S. Agronomy, Brigham Young University, 1974
M.S. Agronomy, University of Arizona, 1976

CERTIFICATIONS: Certified Professional Agronomist
Certified Professional Soil Scientist

LANGUAGE PROFICIENCY: English, Spanish

EXPERIENCE:

Mr. Payne has over 20 years of professional experience providing technical support for water and land use studies, including data collection, review, interpretation, and evaluation of alternatives for water conservation technology, crop suitability, and soil management. Mr. Payne provides irrigation management, crop fertility management, farm production management, economic evaluations, farm cultural practices, and irrigation well water flow measurements for individual farmers, Indian tribes and corporations. Services are provided for developments ranging in size from 200 to over 15,000 acres.

Consulting management services include collecting climatic parameters (air and dew point temperatures, solar radiation, wind travel and precipitation), and soil parameters (soil type, physical properties, intake rates, and water holding capacities); computing and tabulating crop consumptive use; computing irrigation dates and frequency of watering; and monitoring soil moisture through the use of oakfield probes, neutron soil moisture probes and temperature sensing guns; and weekly measurements and reporting of farm irrigation efficiency. Crop management services include analyzing soil, petiole and water samples to determine fertility levels and recommending additional fertility and/or soil amendments to correct deficiencies. Weekly consultations are scheduled with growers for reporting and recommending irrigation, fertility and management practices.

SELECTED PROJECTS:

Gila River Tribal Farms, Sacaton, Arizona – Mr. Payne has provided on-farm services continuously since 1978, including weekly irrigation management, soil and plant tissue testing, diagnosis of the recommendations for specific crop, soil, and water problems, recommendations for soil reclamation following land leveling operations, and recommendations regarding crop selection and cultural practices.

American Desert Harvest, Friendly Corners, AZ, January 1997 to Present – Mr. Payne provided farm management services for a 1200-acre farm being reorganized and planted to olive trees, cotton, alfalfa, and wheat. Services provided include initial design of drainback level basin irrigation systems, coordination of land leveling contracts, supervision of orchard layout and planting, production, irrigation and weed control activities, labor management, and crop production recommendations, crop budgeting, and farm financial reporting.

Bar H Farms, Higley, Arizona – Farmed 400 acres of land southeast of Phoenix, Arizona in Roosevelt Water Conservation District. Crops grown on this farm included corn for silage, sorghum, cotton, alfalfa, and sudan grass.

Fort McDowell Tribal Farm (1998 to present)– Mr. Payne currently has an ongoing contract to provide farm management services to the Fort McDowell Tribal Farm, which consists of 325 acres of citrus, 1000 acres of pecans, and 630 acres of alfalfa. His responsibilities include preparing crop management plans, preparing crop budgets, supervising daily operations of the ranch, marketing crops, and keeping the Tribal Administration current on the status of farming operations.

Ft. McDowell Tribal Farm/Eco Plan Associates, July, 1997 – Mr. Payne provided an analysis of historic performance of the Tribal Farm as well as a study summarizing recommendation for farm management procedures and policies to improve Farm profitability. The study was presented to the Farm Board for use in upgrading farm management procedures and reporting.

LABORATORY CONSULTANTS/DESERT MOUNTAIN GOLF COURSE, CAREFREE, ARIZONA – Mr. Payne worked as a subcontractor to Laboratory Consultants performing the field tests for evaluations of soil/water infiltration rates as part of an irrigation management evaluation of the Desert Mountain Golf Course. This information was used to develop irrigation schedules and optimize irrigation quantities as part of the overall irrigation efficiency evaluation on the golf course. Areas of problem soils were mapped, concentric ring infiltration tests were performed, water-holding capacities of the soil were measured, and measurements of irrigation water applications were made. A rating system of golf course appearance was also developed to determine the optimum irrigation regime.

Farmers Investment Company, Sahuarita, AZ (1992-1999) – Mr. Payne developed and generated computerized irrigation management system to monitor total water use and field irrigation efficiency on 5100 acres of pecans, cotton, and wheat at four farming locations in Central Arizona. Data was collected regarding

soil moisture retention, field ditch elevations, pump discharge volumes, irrigation times, and on-farm water measurement using flumes and weirs. An updated report is prepared at the end of each irrigation cycle showing total water applied to each field, cost per field to date, and field irrigation efficiency of each irrigation. The data is used by the farm manager to implement a water conservation plan, assure that all fields received adequate irrigations, and to monitor water costs and cost savings from the conservation plan.

Arizona Power Authority/Western Area Power Administration/The Harcuvar Company (1995). Mr. Payne was a team member of a group of technical consultants conducting a study of irrigation conservation practices which can be implemented within irrigation districts in the western states which utilize hydropower administered by WAPA. The scope of work included identification of current and potential irrigation conservation technologies and practices which could be utilized in western states. Costs and feasibility of these practices was reviewed. The impact of adopting on-farm conservation practices to the irrigation districts and the resulting impact on the electrical utilities serving those districts was quantified. Applicability for western districts of an existing computer model developed by WAPA was determined to require modification. A users manual to be used by irrigation districts in running the model for their own evaluations was written as part of the study.

Papago Farms, Papago Indian reservation, Sells, Arizona (1985) – Mr. Payne was a sub-contractor to Franzoy Corey Engineering. Mr. Payne provided technical guidance during development of 1,200 acres of irrigated cropland receiving water from deep-well pumps. Projects included soil and water analysis, recommendations for reclamation of salt-affected areas, crop selection, recommendations for cultural practices, machinery selections, irrigation management, and participation in on-farm management during initial start-up operation.

Comision Nacional de Aguas/Bookman Edmonston Engineering, Sinaloa, Chihuahua, Sonora, Mexico (1994). As a subcontractor to Bookman Edmonston, Mr. Payne conducted on-farm irrigation efficiency and management evaluations in four large irrigation districts in northern Mexico. The study was for prioritizing cost-share funding of irrigation efficiency improvement projects in surface water irrigation districts irrigation approximately 2 million acres. Field work consisted of measurement of water flow rates to farms and individual fields, soil moisture measurements, distribution system capacity evaluations and crop water requirement documentation. Data was also collected regarding crop production costs, district water rate structures, district administration procedures and policies, and potential impacts to growers of changes in water pricing and/or water delivery policies.

Lone Butte Ranch, Chandler, Arizona – Mr. Payne provided technical input and chemical analysis for evaluating the feasibility of irrigation 3,000 acres of cropland with sewage effluent from the City of Chandler. He has provided continuous monitoring of salinity, soil fertility, and provided management services for the farm from 1978 to 1995.

Ft. McDowell Indian Community – Orchard Development. 1995-1998. Mr. Payne served as crop consultant by the Ft. McDowell Tribal Farm during the 3-year development of a 1500-acre orchard. The crops planted included pecans, citrus, and olives. Project work included a crop suitability study, soil classification work, tillage and land preparation recommendations, preparation of crop budgets, supervision of planting operations, review of irrigation system performance, and monitoring of tree health to insure a successful planting.

Roosevelt Water Conservation District, Higley, Arizona (1990) – An analysis of the future impact of State-mandated water conservation on the District and its landowners was performed. Areas of study included types and locations of soils having limitations to efficient irrigation, current performance of level and sloping irrigation systems in the District, evaluations of irrigation efficiency of citrus orchards, the impact of District water delivery scheduling and cut-off notice requirements on individual farm irrigation efficiency, the effect of late water deliveries by the District on individual farm irrigation efficiency, and the impact of a prorated District water delivery on farm efficiency.

State of New Mexico, Pecos River Water Compact Claims, (1989) – Mr. Payne served as project agronomist with a team of technical experts to evaluate claims of damage to the State of Texas. These damages were caused by increased salinity and shortages of water in the Pecos River by the State of New Mexico. Project activities consisted of review of historic crop production and yield data, determination of salinity impacts on crops and soils, field trips to the affected lands, an evaluation of irrigation management in the districts, and preparation of a report detailing results of the study. Conclusions of the study were presented as expert witness testimony in court. The case was settled by negotiation during the trial.

Yacreta Hydropower Project, Ayolas, Paraguay – Harza Engineering Co, Chicago, Ill (1990) – Mr. Payne performed a Land Classification Survey on 40,000 acres of land in Paraguay, South America, scheduled to be inundated by the waters of the hydroelectric project. In addition, data was collected for the Project Economist regarding crop suitability, crop yields, production inputs and prices, and damage estimates to farm infrastructure from potential flooding.

San Carlos Apache Reservation Land Classification Study (1989-1990) – Mr. Payne served as project agronomist for water adjudication study to determine potential irrigable acres on the San Carlos Apache Indian Reservation in southern

Arizona. The project consisted of identifying lands suitable for cultivation, selecting crops, assisting the project economist in preparing crop production sequences and costs, determining crop water requirements, and providing support data to the project engineers for designing farm layout and irrigation systems.

U.S. Department of Justice – Water Resources Study, Colorado River, Ft. Mojave, and Queschan Indian Tribes, (1987) – Mr. Payne served as a subcontractor to Franzoy Corey Engineering in a 1987 study of land use, agricultural activities, and associated diversions of Colorado River water on three Indian reservations along the Colorado River. His responsibilities included field collection of data regarding locations of and documentation of all lands currently and historically irrigated, double cropped acreage, annual river diversions and consumptive use of the river on each land parcel, preparation of maps showing location of lands and river diversion points, and a summary of number and length of leases on each reservation. Data collection required contact with various government agencies that maintain records of land and water use as well as personal contact with numerous private individuals leasing reservation lands. Personal visits were made to many land parcels to verify irrigation status, cropping patterns, evaluate irrigation systems, and to contact leasees for information. Maps were prepared showing location and irrigation activity of all agricultural lands on the three reservations on both Arizona and California lands.

New Mexico State Engineer Office, Rio San Jose Water Rights Adjudication, Santa Fe, New Mexico. (1989) – Mr. Payne served as project agronomist for a team of technical experts evaluating claims to water in the Rio San Jose basin by the Acoma, Laguna, Canoncito, and Navajo Ramah Indian Pueblos. The project consisted of evaluating proposed cropping patterns, historic uses of water, crop suitability evaluations, and providing technical support to the project soil scientist and economist in determining potential uses of water on Pueblo lands. Findings of the study were presented as expert witness testimony in court.

AFFILIATIONS:

American Society of Agronomy
Soil Science Society of America
American Registry of Certified Professional
Arizona Department of Water Resources Technical Committee
Governors Citrus Research Council

PUBLICATIONS:

Management Of Soil, Water, And Plant Fertility For Optimum Crop Production.
Proceedings of 1979 Western Cotton Conference. Phoenix, Arizona

A Commercial Company Approach To Soil And Plant Monitoring Of Cotton
Nitrogen Needs. Proceedings of 1978 National Cotton Council. Dallas, Texas

Economics of Short-Season and Narrow-Row Cotton. Proceedings of 1976
Beltwide Cotton Production Research Conference. Las Vegas, Nevada

M.S. Thesis: "An Economic Evaluation of Short-Season and Narrow-Row Cotton
in Arizona"